

The U.K. Electrical Equipment (Safety) Regulations 1994: CE Marking Requirement

The CE Mark may now be placed on electrical products if the manufacturer so wishes and if it can be shown that the product complies with the essential safety requirements of the Low-Voltage Directive (LVD).

The requirements of the LVD and the relevant CE Marking amendments have been incorporated into U.K. legislation by the Electrical Equipment (Safety) Regulations of 1994, which replace the 1989 regulations. The U.K. Department of Trade and Industry (DTI) has recently published a guidance document on the U.K. regulations, and with its permission, we have reproduced some extracts from that document within the paragraphs that follow.

The modified directive embodies a number of principles:

1. Only electrical equipment that does not jeopardize the safety of people, domestic animals, and property shall be placed on the market.
2. Only electrical equipment that satisfies the CE Marking requirements will be taken as complying with the requirements of the modified Low-Voltage Directive and thereby be entitled to free circulation throughout the EEA, unless there are reasonable grounds for suspecting that the product does not in fact meet the requirements.
3. Electrical equipment is not required to be tested or marked for approval by an independent third party.
4. Enforcement is the responsibility of each member state within its national jurisdiction.
5. Electrical equipment that complies with the 1994 regulations will be taken to comply with the modified directive and will be entitled to free circulation through the EEA.
6. In the U.K., non-CE-Marked equipment that was in the supply chain before January 1, 1987, will not have to be withdrawn, provided it satisfies the 1989 regulations. It is possible, however, that other member states will apply a stricter regime and prohibit the continued supply of unmarked equipment after January 1, 1997.

Who Can CE-Mark?

An EEA-based manufacturer constitutes the first link in the supply chain permitted to: affix the CE Mark; draw up and hold an EC Declaration of Conformity; or compile and maintain the technical documentation.

Manufacturers not established within the EEA may still affix the CE Mark, draw up the EC Declaration of Conformity, and compile the technical documentation. If such a manufacturer has appointed an authorized representative within the

EEA, that representative should retain copies of the EC Declaration of Conformity and the technical documentation; if no such representative has been appointed, the EC Declaration of Conformity and the technical documentation should be retained by the first supplier of the electrical equipment within the EEA.

Because the 1994 regulations permit an authorized representative to undertake more tasks than may be undertaken by an importer, the manufacturer and his representative should make sure that the appointment is clearly documented and can be substantiated if required.

Subject to the conditions of appointment, the authorized representative may:

- affix the CE Mark;
- draw up and retain EC Declaration of Conformity;
- and where the manufacturer is not established within the European Union, retain the technical documentation within the EEA territory.

The importer is any person who first places electrical equipment from a third country on the EEA market. Unless he or she is also the manufacturer's authorized representative, the importer cannot:

- affix the CE Mark;
- draw up and retain an EC Declaration of Conformity; or
- compile the technical documentation.

He or she is, however, required to retain copies of the EC Declaration of Conformity and the technical documentation.

All other suppliers (e.g., wholesalers, retailers, etc.) have a statutory duty to ensure that the equipment they supply: satisfies the safety requirements; and bears a CE Marking.

Safety Requirements

Electrical equipment that has been constructed in such a way as to meet the safety provisions of one or another level in an accepted hierarchy of standards and requirements will be taken to satisfy the 1994 regulations unless there are reasonable grounds for suspecting that it does not so comply. In descending order of authority, the hierarchy is as follows:

1. harmonized standards as published in the *Official Journal of the European Communities (OJ)*;
2. international standards as published in the *OJ*; and
3. national standards where no harmonized or international standards exist, provided that such national standards do in fact satisfy the safety requirements of the regulations.

Electrical equipment that has not been manufactured to comply with one of the above categories of standards—perhaps because it is an innovative product—must nevertheless comply with the essential safety requirements. In such cases, it may be prudent for the supplier to have the equipment assessed for safety by an independent third party, optimally a Notified Body.

Production Controls

The manufacturer is responsible for ensuring that its manufacturing process conforms to that described in the technical documentation relating to the electrical equipment being produced.

Technical Documentation

The technical documentation must be such as to enable enforcement authorities to assess the conformity of the electrical equipment with the requirements of the 1994 regulations. It must, as far as is relevant for such assessment, cover the design, manufacture, and operation of electrical equipment and must include the following:

1. General description of the equipment. This requirement may normally be met by the description provided in the user's handbook.
2. Design and manufacturing drawings and schemes of components, subassemblies, etc. This provision may be met by a general assembly drawing, photographs, and circuit diagrams of required elements, provided that all of these relate to a particular model and year of manufacture.
3. Any descriptions or explanations necessary to understand the drawings supplied. The user's handbook may to some extent fulfill this requirement.
4. A list of standards applied in full or in part, along with descriptions of any solutions adopted to satisfy the safety requirements where specific standards have not been applied.

5. Results of all design calculations made, examinations carried out, etc. Test reports may meet this requirement if it can be demonstrated that the design calculations have been made correctly.

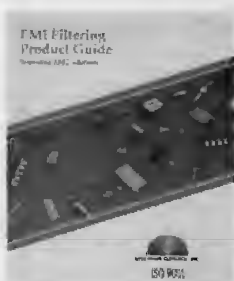
6. Test reports. This could include reports drawn up by the manufacturer itself, by a Notified Body, or by any other entity that the manufacturer considers competent.

7. A copy of the EC Declaration of Conformity.

It should be noted here that the CE Mark is essentially a statement representing that the product meets the requirements of all applicable directives. Where exceptions exist, the technical documentation must call out those directives and regulations with which compliance is being claimed.

The foregoing paragraphs summarizing the main points of the LVD and the implementing U.K. regulations are intended for guidance only. Reference should be made to the regulations themselves and to the Low Voltage Directive for a full statement of the legal requirements. Where necessary, independent legal advice should be sought.

New EMI Filtering Product Guide



Spectrum Control, Inc., has published a new 226-page catalog covering its complete line of products and services for suppression or elimination of EMI/RFI. Among the products covered are resin-sealed, solder-in and hermetically sealed filters; filter plate assemblies; filtered terminal blocks; filtered D-subminiature connectors; custom filtered connectors; single-line filters; power entry modules; power line filters; multisection filters; custom power filters; and ceramic capacitors. The new product guide also provides background information on Spectrum Control, application guidelines for using filters to eliminate EMI, details on EMC testing services, a part number index and a military cross reference of qualified components.

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New Spira Gasket Catalog



Spira's patented EMI gaskets are featured in this all-new, expanded catalog. Both low-cost and high-shielding design solutions are offered, along with design information on groove- and surface-mounting gaskets and shielding-quality data. A new color brochure describes Spira's line of EMI gaskets and shows examples of applications. Free packet of samples enclosed!

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